



Artigos sobre alinhadores

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ezaligner

Link para os artigos:

<https://drive.google.com/drive/folders/1oPuEEW9pQLzKIMfXRmfSDI1tGSBFYBD-?usp=sharing>

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Visão geral

O objetivo desse documento é selecionar e falar de vários artigos que são bases para nosso posicionamento com alinhadores, eles são de fontes variadas e quaisquer artigos que tenham sido financiados ou terem tido o apoio da ezaligner serão devidamente identificados.

Objetivos

1. Melhorar o conhecimento dos nossos parceiros sobre essa maravilhosa técnica
2. Ajudar a fundamentar nossas colocações e decisões mediante ao nosso produto, buscando ter a melhor

Critério para Seleção

Esses artigos foram obtidos a partir de extensa pesquisa no pubmed, recomendação de professores colegas e alguns tirados dos livros Técnica em alinhadores invisíveis da Sandra Tai e Alinhadores Ortodônticos de Werner Schupp e Julia Haubrich.

Artigos

I. Biomechanics of clear aligners: hidden truths & first principles.

Upadhyay M, Arqub SA. Biomechanics of clear aligners: hidden truths & first principles. J World Fed Orthod. 2022 Feb;11(1):12-21. doi: 10.1016/j.ejwf.2021.11.002. Epub 2021 Dec 26. PMID: 34965910.

Esse é meu artigo preferido sobre alinhadores, extremamente didático e esclarecedor, dando uma visão geral. Leitura Obrigatória.

II. Comparison of pain levels in patients treated with 3 different orthodontic appliances – a randomized trial.

Diddige R, Negi G, Kiran KVS, Chitra P. Comparison of pain levels in patients treated with 3 different orthodontic appliances - a randomized trial. *Med Pharm Rep.* 2020;93(1):81-88. doi:10.15386/mpr-1311


III. Forces and moments delivered by the PET-G aligner to a maxillary central incisor for palatal tipping and intrusion

Gao L, Wichelhaus A. Forces and moments delivered by the PET-G aligner to a maxillary central incisor for palatal tipping and intrusion. *Angle Orthod.* 2017 Jul;87(4):534-541. doi: 10.2319/090216-666.1. Epub 2017 Feb 6. PMID: 28165289; PMCID: PMC8366706.

Excelente artigo para avaliar como a linha de corte faz diferença sobre a capacidade de forças do alinhador

IV. Forces and moments generated by removable thermoplastic aligners: incisor torque, premolar derotation, and molar distalization

Simon M, Keilig L, Schwarze J, Jung BA, Bourauel C. Forces and moments generated by removable thermoplastic aligners: incisor torque, premolar derotation, and molar distalization. *Am J Orthod Dentofacial Orthop.* 2014 Jun;145(6):728-36. doi: 10.1016/j.ajodo.2014.03.015. Erratum in: *Am J Orthod Dentofacial Orthop.* 2014 Oct;146(4):411. PMID: 24880843.



V. Force decay of polyethylene terephthalate glycol aligner materials during simulation of typical clinical loading/unloading scenarios.

Elkholy, F., Schmidt, S., Schmidt, F. *et al.* Force decay of polyethylene terephthalate glycol aligner materials during simulation of typical clinical loading/unloading scenarios. *J Orofac Orthop* (2021).
<https://doi.org/10.1007/s00056-021-00364-5>

VI. Effects of time and clear aligner removal frequency on the force delivered by different polyethylene terephthalate glycol-modified materials determined with thin-film pressure sensors.

Skaik, A., Wei, X. L., Abusamak, I., & Iddi, I. (2019). *Effects of time and clear aligner removal frequency on the force delivered by different polyethylene terephthalate glycol-modified materials determined with thin-film pressure sensors. American Journal of Orthodontics and Dentofacial Orthopedics, 155(1), 98–107.* doi:10.1016/j.ajodo.2018.03.017

VII. Dynamic mechanical and thermal properties of clear aligners after thermoforming and aging.

Dalaie K, Fatemi SM, Ghaffari S. Dynamic mechanical and thermal properties of clear aligners after thermoforming and aging. *Prog Orthod.* 2021 Jun 28;22(1):15. doi: 10.1186/s40510-021-00362-8. PMID: 34180030; PMCID: PMC8236420.

VIII. Chemico-Physical and Optical Features of the Most Common PETG and PU Based Orthodontic Aligners for Clear Aligner Therapy

Daniele V, Macera L, Taglieri G, Spera L, Marzo G, Quinzi V. Color Stability, Chemico-Physical and Optical Features of the Most Common PETG and PU Based Orthodontic Aligners for Clear Aligner Therapy. *Polymers (Basel)*. 2021;14(1):14. Published 2021 Dec 21. doi:10.3390/polym14010014

IX. Chemical and mechanical characteristics of contemporary thermoplastic orthodontic materials

Alexandropoulos, Alexandros et al. "Chemical and mechanical characteristics of contemporary thermoplastic orthodontic materials." *Australian orthodontic journal* 31 2 (2015): 165-70 .

Do artigo 3 ao 9 são abordados as propriedades mecânicas do plástico, tema de suma importância para entender melhor como o alinhador entrega forças para os dentes.

X. Predictability of orthodontic movement with orthodontic aligners: a retrospective study

Lombardo L, Arreghini A, Ramina F, Huanca Ghislanzoni LT, Siciliani G. Predictability of orthodontic movement with orthodontic aligners: a retrospective study. *Prog Orthod*. 2017 Nov 13;18(1):35. doi: 10.1186/s40510-017-0190-0. PMID: 29130127; PMCID: PMC5682257.

XI. Lower Molar Distalization Using Clear Aligners: Bodily Movement or Uprighting? A Preliminary Study

Lombardo L, Arreghini A, Ramina F, Huanca Ghislanzoni LT, Siciliani G. Predictability of orthodontic movement with orthodontic aligners: a retrospective study. *Prog Orthod*. 2017 Nov 13;18(1):35. doi: 10.1186/s40510-017-0190-0. PMID: 29130127; PMCID: PMC5682257.

XII. Accuracy of clear aligners: A retrospective study of patients who needed refinement

Charalampakis O, Iliadi A, Ueno H, Oliver DR, Kim KB. Accuracy of clear aligners: A retrospective study of patients who needed refinement. *Am J Orthod Dentofacial Orthop*. 2018 Jul;154(1):47-54. doi: 10.1016/j.ajodo.2017.11.028. PMID: 29957318.

XIII. Mechanical analysis of factors affecting clear aligner removability

Takara Y, Haga S, Kimura H, Maki K. Mechanical analysis of factors affecting clear aligner removability. *Dent Mater J*. 2022 Jul 30;41(4):534-544. doi: 10.4012/dmj.2021-176. Epub 2022 Mar 24. PMID: 35321972.

XIV. Effects of Invisalign (G5) with virtual bite ramps for skeletal deep overbite malocclusion correction in adults

Henick D, Dayan W, Dunford R, Warunek S, Al-Jewair T. Effects of Invisalign (G5) with virtual bite ramps for skeletal deep overbite malocclusion correction in adults. *Angle Orthod.* 2021 Mar 1;91(2):164-170. doi: 10.2319/072220-646.1. PMID: 33434276; PMCID: PMC8028480.

Apesar de ser um artigo feito com alinhadores Invisalign é extremamente interessante para entendermos a efetividade dos batentes de mordida anterior utilizado por nos na ezaligner.

XV. Predictability of lower incisor tip using clear aligner therapy

*Smith, J.M., Weir, T., Kaang, A. et al. Predictability of lower incisor tip using clear aligner therapy. Prog Orthod. 23, 37 (2022).
<https://doi.org/10.1186/s40510-022-00433-4>*